

REMARKS

I. Summary of the Examiner's Action

A. Claim Rejections

As set forth on page 2 of the December 16 Office Action, claims 1, 6 and 11 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

As set forth on page 3 of the December 16 Office Action, claims 1 – 3, 6 – 7, 10 – 12 and 15 – 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over United States Patent No. 6,573,844 B1 to Venolia *et al.* (hereinafter “Venolia” or “the Venolia patent”) in view of United States Patent No. 5,963,671 to Comerford *et al.* (hereinafter “Comerford” or “the Comerford patent”), and further in view of United States Patent No. 7,136,047 to Shimada *et al.*, (hereinafter “Shimada” or “the Shimada patent”).

These rejections are respectfully disagreed with and traversed below.

II. Applicant's Response

A. Rejection of Claims 1 – 3, 6, 7 and 11 – 12 under 35 U.S.C. § 112, first paragraph

Applicants have amended claims 1, 6 and 11 by deleting “without a control input” or equivalent language from each of the identified claims. Although Applicant respectfully submits that this language is fully supported by the application as filed, upon

further consideration Applicant believes this language is not necessary to distinguish over the prior art. Regarding support for “without a control input” Applicant notes that the application as filed does not describe the need for another control input to determine in which mode to operate; rather, once the identity of an initial information unit is determined no further action is required because the method uses the identity of the information unit to determine in which mode to operate. This is apparent from the description appearing at page 6, line 14 – page 7, line 9 of the application, reproduced here (emphasis added):

“In step 44 the most potential keys to be pressed next are evaluated. A decision about enlargement is made in step 45 if there is a need to enlarge one or more keys on the display 10. If the decision in step 45 gives a negative answer, the process branches out to step 47. In step 47 it is decided that the key size remains unchanged compared to the situation before the key press. After that the process comes back to step 42 and a further key press is possible.

If in step 45 a positive decision is made, the process continues to step 46. In step 46 the most potential touch sensitive areas of information input, i.e., keys, are enlarged for the next key press on the touch display 10. *If the key which was pressed in step 42 was number 0, it means that all number keys are equally probable. That is why in the example of Fig 3b all the numbers from 0 to 9, reference designator 31b and soft keys 34b and 35b are enlarged on the display 10.* On the other hand the area for text and pictures 32b is advantageously concurrently reduced in size, because it is evident that its use is minimal during dialing. After the enlargement, phase 46, the process comes back to step 42 and a further key press is possible.

After each further key press this enlargement process according to the invention recurs. The key enlarged next can be some other key than the key in the first or previous cycle. *Also the size of the enlarged keys can vary case specific.* The inventive process continues until some user process has come to an end; a phone number has been dialed or some internal functions in the terminal are completed for example. After that the display 10 according to the invention re-enters to the initial state.

The method according to the invention, which includes the idea to use enlarged keys or information input areas, can also advantageously be used as a guiding agent when teaching a novice user of an electronic device for the first time. *The invention helps the new user in two ways. For achieving some goal a key to be pressed next or first is made bigger on the touch display. By that way the user of the electronic device is informed about the best way to begin or proceed.* A second known guiding feature is the possibility to change descriptive text of the soft keys on the touch display. According to the invention also the guiding text can be emphasized in the same way as the keys on the touch display.”

As described in the foregoing portion it would be clear to one of ordinary skill in the art that the determination of how to enlarge the characters (all equally as in the case of numbers or varying based on relative likelihood as in the case of letters) is made without a separate control input apart from the initial entry of a number or letter. Further, as discussed in the emphasized portion of the last paragraph reproduced above, the method of Applicants is particularly suitable for novice users. Novice users need not know an additional command to aid their composition efforts, for example, to choose that characters be emphasized. Rather, Applicant’s method assists a user by automatically enlarging characters, for example, *“For achieving some goal a key to be pressed next or*

first is made bigger on the touch display. By that way the user of the electronic device is informed about the best way to begin or proceed.” Accordingly, one of ordinary skill in the art would conclude that “*without control input*” is either explicitly or inherently disclosed in this portion of the application.

Nonetheless, Applicant believes that this language is not currently necessary to distinguish over the art of record and has cancelled the language from the claims. If the Examiner now disagrees after consideration of the foregoing and following arguments, and concludes both that the language does find support in the application as filed and that such language serves meaningfully to distinguish over the prior art of record, Applicant will consider adding this language back to the claims. Alternatively, if the Examiner persists in this rejection or similarly believes that the language is not necessary to distinguish over the prior art of record, in view of the cancellation of this language from the claims, Applicant respectfully requests that the rejection on this basis be withdrawn.

B. Rejection of Claims 1 – 3, 6 – 7, 10 – 12 and 15 – 23
under 35 U.S.C. § 103(a)

Applicant reproduces claim 1 here (as amended) as a convenience to the Examiner (emphasis added):

1. A method comprising:
receiving a separate information unit entered with an input element of a dynamic I/O arrangement belonging to a user interface of an electronic device, wherein the separate information unit corresponds to a first character entered in a composition activity;

automatically determining from the identity of the separate information unit whether input entry is in a first mode or a second mode, wherein when it is determined that the input entry is in a first mode, increasing in an equal amount size of members of a group of input elements; and when it is determined that the input entry is in a second mode, determining based on probability which information units will likely be input next; and emphasizing by size the input elements corresponding to the information units likely to be entered next in the user interface of the electronic device, wherein the sizes of the emphasized input elements vary on a case-specific basis depending on respective probabilities of the information units associated with the input elements.

Applicant respectfully submits that the amendment finds support throughout the application as filed. (*See*, for example, page 5, lines 21 – 31) Applicant argues that the emphasized subject matter of claim 1 is neither described nor suggested by the art of record, whether taken singly or in combination.

Applicant has made a significant effort to distinguish over the art of record by amendment. The Examiner now requires three references to reject the independent claims in the case, and it is noted that certain of the subject matter relied upon by the Examiner is not what is taught by a reference, but rather a *modification* of the subject matter taught by the reference, where the modification is purportedly taught by a relied-upon reference, but in reality requires the insight provided by Applicant to determine how to make the modification. The number of references necessary to make the rejection of

the independent claims in the case, and the amount of modification required, in view of the implicit reliance on Applicant's disclosure to determine how to make the required modifications, should be evidence of non-obviousness of the independent claims over the art of record.

In particular, Applicant argues that there is simply no teaching in any of the art of record, whether taken singly or in combination, of a method that determines how to emphasize succeeding characters in a composition activity based on the identity of a first character entered in a composition activity as now recited in the independent claims. As Examiner admits, Venolia uses arrangement of units and not size to portray relative probability, but does not teach two operating modes wherein the characters are enlarged by an equal amount in a first mode and by a varying amount in a second mode. By relying on Shimada, the Examiner similarly admits that Comerford does not teach two operating modes.

Further, Applicant respectfully submits that the Shimada references neither describes nor suggests modifying the combination of Venolia and Comerford so two available operating modes results as is required by the independent claims. In particular in the relied-upon portions of Shimada there are described and depicted an alphabetical character entry mode and a numerical character entry mode. However, the relied-upon portions concern what characters are available for selection, and not how the characters are emphasized. In Applicant's invention as now claimed, if it is determined that a user

wishes to enter a telephone number, the input keys are emphasized in one manner. If it is determined from the identity of the input unit that a user wishes to enter a message using letters, the most likely characters to be entered next are emphasized according to relative probability. The different modes in Shimada do not operate on a single input unit set but rather switch between separate input character sets. This is apparent from the relied upon portion of Shimada reproduced here:

“In an embodiment of the invention, the display for the device of interest, be it a cell phone, PDA, or other device, has two primary areas. A first area, sometimes referred to herein as the ‘input area’, contains an array of symbols, each associated with a group of several characters. A second area, sometimes referred to herein as the ‘candidate area’, contains an array of the characters associated with the most recently selected group symbol in the input area. Thus both areas are able to accept touch input, and at least the candidate area, and preferably the input area as well, is comprised of an adaptive display rather than a fixed display. To select a particular character, a user simply pushes the appropriate group symbol in the input area, at which point the relevant group of characters is displayed in the candidate area. Subsequently, the user directly selects the desired character in the candidate area.

It will be appreciated that the present invention allows the buttons user to input characters to be much larger than they would typically need to be if each character were to be constantly displayed on the screen for selection. The large buttons make selection by finger easier and more accurate, increasing user convenience. At the same time, this two tap method provides a time and effort savings over prior multi-tap techniques wherein substantially more taps per character were required on average. Additional features and advantages of the invention will be made apparent

from the following detailed description of illustrative embodiments which proceeds with reference to the accompanying figures.”

In order to select a particular character from a group in Shimada, a user must enter a separate control input by selecting a control key that corresponds to a group of characters. When the control key is selected, the characters comprising the group that is associated with the control key are then displayed and are available for selection. The operations described by Shimada are not automatic as recited in claim 1 and require a separate control key operation. Further, the control key entry does not select a character that is part of a message that is being composed as is now required by claim 1: “receiving a separate information unit entered with an input element of a dynamic I/O arrangement belonging to a user interface of an electronic device, *wherein the separate information unit corresponds to a first character entered in a composition activity.*” In view of the foregoing, Shimada cannot teach how to modify the combination of Venolia and Comerford so that the subject matter of claim 1 results. Shimada requires a separate control input to select a group of characters. Further, Shimada neither describes nor suggests two operating modes where input elements are emphasized in a different manner in each of the operating modes.

Accordingly, Applicant respectfully submits that independent claims 1, 6 and 11 are allowable over the art of record. As a result, Applicant requests that the rejection of claims 1, 6 and 11 be withdrawn. Applicant also requests that the rejection of claims 2,

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3, 7, 10 and 12 be withdrawn as well since these claims depend from allowable base claims.

III. Conclusion

Applicant submits that in light of the foregoing amendments and remarks the application is now in condition for allowance. Applicant therefore respectfully requests that the outstanding rejections be withdrawn and that the case be passed to issuance.

Respectfully submitted,

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Date

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